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EXAMINER

AUGHENBAUGH, WALTER

ART UNIT	PAPER NUMBER
1772	6

DATE MAILED: 07/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS7

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/084,573	AMINE ET AL.
Examiner	Art Unit	
Walter B Aughenbaugh	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 14 May 2003.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 32-34 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-31 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

**DETAILED ACTION*****Acknowledgement of Applicant's Amendments***

1. The amendment made in claim 8 provided on page 4 of the response dated May 14, 2003 (Paper 6) has been received and considered by Examiner.

***Election/Restrictions***

2. Applicant's election with traverse of Group I, claims 1-19 in Paper No. 6 is acknowledged. The traversal is on the ground(s) that "the inventions claimed in Groups I, II and III are closely related and that the search and examination of Groups I, II, and III together would not be a serious burden for the Examiner" (page 10 of Paper 6). Applicant more specifically argues that "all of the claims of Groups II and III and claims 12-19 of Group I each require absorbent material associated with the sealant layer". In response to these arguments, Examiner has rejoined the claims designated as the claims of Group II in Paper 4, claims 20-31, with the claims of Group I as designated in Paper 4; claims 1-31 now constitute a single group, Group I, drawn to a laminate. Applicant's arguments that claims 32-34, designated as Group III in Paper 4, should be examined with claims 1-31 is not found persuasive because the laminate of claims 1-31 and the housing of claims 32-34 are related as mutually exclusive species in an intermediate-final product relationship as previously made of record in paragraphs 3 and 4 of Paper 4. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a laminate sheet and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the

ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention. Furthermore, a search of claims 1-31 does not "of necessity require" a search of claims 32-34 as Applicants argue, because claims 1-31 are not directed to a housing comprising a laminate wherein the laminate is fashioned into a pouch having at least one seam that is double sealed by a first and a second sealing region such that a channel is defined between the first and the second sealing regions as is claimed in claim 32. A search for these limitations of claim 32 would place additional (serious) burden on the Examiner. The restriction requirement between claims 1-31 and Group III of Paper 4, claims 32-34, is deemed proper and is therefore made FINAL.

***WITHDRAWN REJECTIONS***

3. The 35 U.S.C. 112 rejection of claim 1 made of record in paragraph 10 of Paper 4 has been withdrawn due to Applicant's arguments on pages 10-11 of Paper 6.
4. The 35 U.S.C. 112 rejection of claim 8 made of record in paragraph 10 of Paper 4 has been withdrawn due to Applicant's amendment to claim 8 provided on page 4 of Paper 6.

***REPEATED REJECTIONS***

5. The 35 U.S.C. 103(a) rejection of claims 1-5 and 7-17 over Chaloner-Gill (US 5,445,856) in view of Kurfman (US 4,612,216) has been repeated for the reasons previously made of record in paragraph 12 of Paper 4. The amendment to claim 8 made in Paper 6 does not affect the

rejection of claim 8 made of record on page 7 of Paper 4; a moisture barrier layer as claimed prior to amendment of claim 8 is a barrier layer as claimed in claim 8 as amended.

6. The 35 U.S.C. 103(a) rejection of claim 6 over Chaloner-Gill in view of Kurfman and in further view of Sasaki et al. (US 6,277,516) has been repeated for the reasons previously made of record in paragraph 13 of Paper 4.

7. The 35 U.S.C. 103(a) rejection of claims 18 and 19 over Chaloner-Gill in view of Kurfman and in further view of Shores (US 5,401,536) has been repeated for the reasons previously made of record in paragraph 14 of Paper 4.

### ***NEW REJECTIONS***

#### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 20-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Chaloner-Gill (US 5,445,856).

In regard to claims 20-23, Chaloner-Gill teaches a laminate for protecting components of an electrochemical cell such as a lithium battery (col. 1, lines 49-53), and therefore teaches a laminate for use as a battery housing. Chaloner-Gill teaches that the laminate protects from attack and/or passivation from electrolytes and moist air (col. 1, lines 17-19), and therefore the sealant layer of Chaloner-Gill (interior layers, items 36 and 38, col. 2, lines 9-12 and col. 4, lines 50-53) is capable of acting as a barrier to an electrolyte and has an internal surface that is

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substantially inert to the electrolyte. Chaloner-Gill teaches that the laminate comprises outer protective layer (item 40), adhesive layer (item 50), metal foil layer (item 44) and sealant layer (item 36) (col. 4, line 63-col. 5, line 43 and Figure 5). Chaloner-Gill teaches the combination of oxygen scavengers with various oxygen absorbers such as activated clay and activated alumina (col. 7, line 62-col. 8, line 68) and water absorbing agents such as water absorbent resins, calcium sulfate and silica gel (col. 9, lines 1-33). Chaloner-Gill teaches that the oxygen absorbers and water absorbing agents, in particle form, are incorporated in one of the sealant layer, adhesive layer or protective layer or are disposed of between layers of the laminate (col. 9, line 62-col. 10, line 15 and col. 10, lines 23-39 in claims 1 and 4-6; and col. 8, lines 49-68); therefore Chaloner-Gill teaches an absorbent material pattern printed on the internal surface of the sealant layer. The structure taught by Chaloner-Gill, particles of absorbent material disposed of between layers of the laminate, is structurally equivalent to the structure recited by claim 20, i.e. "printed on the internal surface of the sealant layer", and a plurality of particles spread out along the plane of the junction of two layers forms a pattern of absorbent material. Note that "adjacent" does not require absolute contact, but requires relatively close position. *Ex parte Hadsel*, (PO BdApp) 109 USPQ 509.

Note that the intended use phrase "for use as a battery housing" has not been given patentable weight, since it has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQd 1647 (1987).

Note that it has been held that the recitation that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

In further regard to claim 21, the calcium sulfate, silica gel and water absorbent resins taught by Chaloner-Gill are necessarily moisture resistant since Applicant claims these materials that are taught by Chaloner-Gill as such.

In further regard to claim 22, the activated alumina taught by Chaloner-Gill is necessarily hydrofluoric acid absorbent since Applicant claims this material that is taught by Chaloner-Gill as such.

In regard to claims 24 and 25, Chaloner-Gill teaches a barrier layer (polyamide-based layer, item 64) is disposed adjacent to the external surface of the sealant layer (interior layer, item 60) (col. 6, lines 15-22 and col. 6, line 46-col. 7, line 2 and Fig. 5). Chaloner-Gill teaches that the polyamide-based barrier layer contains an absorbent material (col. 9, line 62-col. 10, line 15 and col. 10, lines 23-39 in claims 1 and 4-6; and col. 8, lines 49-68).

In regard to claims 26 and 27, Chaloner-Gill teaches that an adhesive layer (olefin based adhesive polymer layer, item 62, Fig. 5) is between the sealant layer (item 60) and the polyamide-based barrier layer (item 64) (col. 6, lines 15-22). Chaloner-Gill teaches that the absorbent material is incorporated in the adhesive material of the adhesive layer (item 62) (col. 9, line 62-col. 10, line 15 and col. 10, lines 23-39 in claims 1 and 4-6; and col. 8, lines 49-68).

In regard to claims 28-31, Chaloner-Gill teaches that a protective layer (polyamide based layer, item 72, Fig. 5) is disposed adjacent to the external surface of the barrier layer (polyamide-based layer, item 64) (col. 4, line 66-col. 5, line 3 and col. 6, lines 27-34). The protective layer of

Chaloner-Gill contains an adhesive material since any material that comprises a layer that is bonded to another layer is an adhesive material; the polyamide based material of the protective layer (item 72) is therefore an adhesive material. Chaloner-Gill teaches that the laminate comprises an adhesive material (olefin based adhesive polymer layer, items 66 and 70) between the protective layer (item 72) and the barrier layer (item 64) (col. 6, lines 20-34). Chaloner-Gill teaches that the absorbent material is incorporated in the adhesive material of the adhesive layer (items 66 and 70) (col. 9, line 62-col. 10, line 15 and col. 10, lines 23-39 in claims 1 and 4-6; and col. 8, lines 49-68).

#### **ANSWERS TO APPLICANT'S ARGUMENTS**

10. Applicant's arguments on pages 12-14 of Paper 6 regarding the 35 U.S.C. 103(a) rejection of claims 1-5 and 7-17 over Chaloner-Gill in view of Kurfman have been fully considered but are not persuasive.

In response to Applicant's statement on page 13 of Paper 6 that "As one skilled in the art would appreciate, [the segregated alloy taught by Kurfman, see col. 4, lines 10-17 and 38-46] is, in fact, a single metal layer with an abrupt change in composition from one side of the layer to the other", it is Examiner's position that the segregated alloy structure taught by Kurfman comprises two metal layers. As Applicant states, the segregated alloy taught by Kurfman has "an abrupt change in composition from one side of the layer to the other". Kurfman teaches that the first metal layer and the second metal layer are bonded together via liquid PORTIONS of both the first and second metal layers and that the alloying occurs (only) between the liquid PORTIONS of the first and second metal layers (col. 11, line 67-col. 12, line 2); therefore, Kurfman clearly teaches that the segregated alloy comprises two distinct layers, i.e. the first and

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second layers are bonded together via an alloy that is formed as a result of "interaction between liquid portions of the first and second metal layers" (col. 11, line 68-col. 12, line 1). The respective remainders of the first and second layers that are not the liquid portions of the first and second layers as taught by Kurfman are not disclosed to be compositionally affected (as the liquid portions are disclosed to be compositionally affected) and consequently necessarily remain as the first and second layers.

Applicant points out that Kurfman discloses that the two metal layers, "when taken together, comprise a duplex alloy structure" (col. 6, line 60) on page 13 of Paper 6. Examiner wishes to point out that the word "duplex", when used as an adjective, is used to indicate that something has two parts. For example, the phrase "duplex apartment" is commonly known to indicate that the apartment has two floors. The phrase "duplex alloy structure" used by Kurfman indicates that the structure has two components, i.e. two layers.

Examiner agrees with Applicant that the first and second layers of Kurfman are "intimately adhered to each other", as Applicant states in the last two lines of page 13 of Paper 6, but Examiner disagrees with Applicant's statement that the layers, since they are "intimately adhered to each other", "constitute a single layer". Layers that are "intimately adhered to each other" do not constitute a single layer by virtue of the fact that they are "intimately adhered to each other"; a system of two layers that are "intimately adhered to each other" plainly constitutes two layers that are "intimately adhered to each other". As Applicant points out, as has already been discussed in this *Answers to Applicant's Arguments* section, the segregated alloy taught by Kurfman has "an abrupt change in composition from one side of the layer to the other". This "abrupt change in composition" that Applicant refers occurs at the junction of the two layers.

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Since the "first layer of metal foil" and the "second layer of metal foil" claimed by Applicant in claim 1 are metal layers, the "first layer of metal foil" and the "second layer of metal foil" are structurally equivalent to the "first metal layer" and "second metal layer" of Kurfman. Therefore, Applicant's argument that "Kurfman fail[s] to teach two discrete metal foils as a barrier layer" (page 14 of Paper 6) is irrelevant because the final product resulting from the combination of Chaloner-Gill with Kurfman results in a laminate comprising two metal layers as the laminate as claimed by Applicant is a laminate comprising two metal layers; i.e. the "first layer of metal foil" and the "second layer of metal foil" are structurally equivalent to the "first metal layer" and "second metal layer" of Kurfman.

Applicant's assertion that "the combination of Chaloner-Gill and Kurfman fail to establish a *prima facie* case of obviousness" on page 13 of Paper 6 is not valid based on the reasoning provided above. Examiner maintains the 35 U.S.C. 103(a) rejection of claims 1-5 and 7-17 over Chaloner-Gill in view of Kurfman for the reasons previously made of record in paragraph 12 of Paper 4. In response to Applicant's argument that "Kurfman does not teach the dual metal layers of the present invention", Kurfman does indeed teach the "dual metal layers of the present invention" as defined by the language of claim 1 of the instant application as supported in the above discussion.

In response to Applicant's argument that Kurfman "does nothing to address the problem solved by the present invention" on page 14 of Paper 6, the fact that Applicant uses the two metal layers for a different purpose does not alter the conclusion that its use in a prior art device would be *prima facie* obviousness from the purpose disclosed in the reference. *In re Lintner*; 173 USPQ 560.

***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B. Aughenbaugh whose telephone number is 703-305-4511. The examiner can normally be reached on Monday-Thursday from 9:00am to 6:00pm and on alternate Fridays from 9:00am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on 703-308-4251. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

wba  
07/17/03 *WBA*

*Sandra*  
SANDRA M. NOLAN  
PATENT EXAMINER  
T.C. 1700